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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,396	05/22/2001	David Clarke	79888/AEK	8013

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EXAMINER

FREDMAN, JEFFREY NORMAN

ART UNIT	PAPER NUMBER
1634	

DATE MAILED: 02/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/856,396	CLARKE ET AL.
	Examiner	Art Unit
	Jeffrey Fredman	1637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 03 February 2003.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 13-24 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 13-20,23 and 24 is/are rejected.
- 7) Claim(s) 21 and 22 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) Interview Summary (PTO-413) Paper No(s) _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

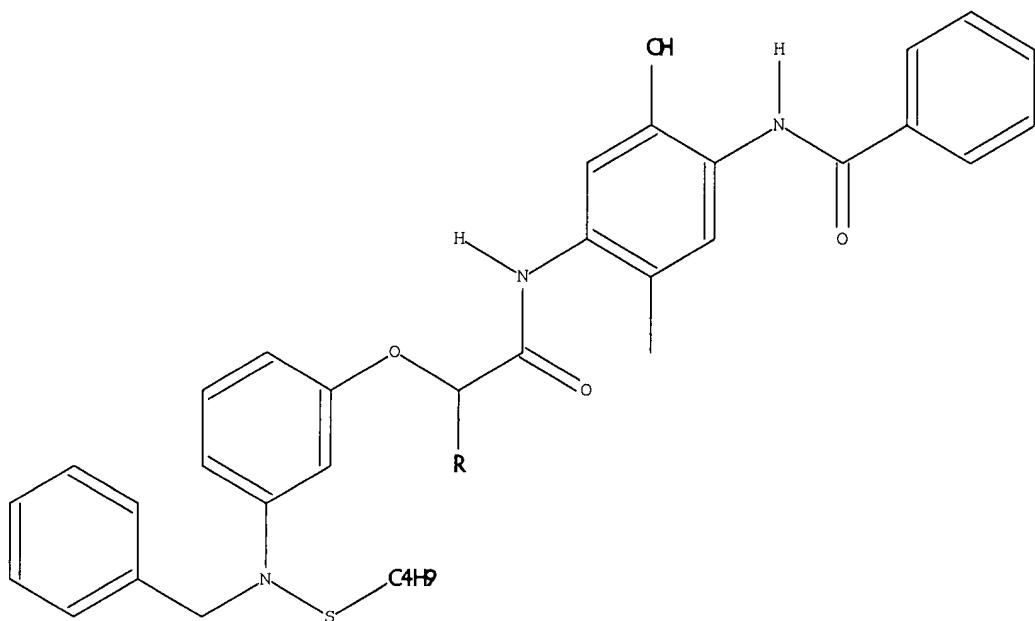
1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 13-18, 20, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimatsu et al (U.S. Patent 4,299,914).

Fujimatsu et al teaches the following structure at column 5, No. 18 (where the S is really SO₂ and the R is C₁₂H₂₅).



The structure of Fujimatsu differs from the claimed structure only in that in the claim, the NSO_2R group is in either the ortho or para position, while in the current case, the substituted NSO_2R group is in the meta position.

Fujimatsu further teaches R_1 as an alkyl group with 8 carbons (see R at column 2, lines 34-35). Fujimatsu teaches R_3 as hydrogen (see structure in column 2).

However, Fujimatsu expressly teaches that the R_1 group can be ortho to the alkoxy group as shown by structure no 13, where the NSO_2R group is ortho (see column 5, no. 13) and where Fujimatsu states that the X group can be orthophenylene (see column 3, line 12) which is substituted with various groups including the R_1 of compound No. 18 in column 5. Fujimatsu further teaches forming an image in a photographic element using the compounds (see column 1, lines 1-10).

It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to an ordinary practitioner that the R1 group of Fujimatsu compound No. 18 could be attached in the ortho position since Fujimatsu expressly teaches that the compounds can be attached in either the ortho or meta positions (see column 3, lines 11 and 12). An ordinary practitioner would have been motivated to substitute the compound into the ortho position since Fujimatsu expressly teaches that this is an option and recognizes the desirability of such an option by claiming the orthophenylene group (see column 16, claim 20).

4. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimatsu et al (U.S. Patent 4,299,914) in view of Usagawa et al (U.S. patent 4,368,257).

Fujimatsu et al teaches the limitations of claims 13-18, 20, 23 and 24 as discussed above. Fujimatsu does not teach placement of the R1 group in the para position.

Usagawa et al teaches placement of the substituent into the para position (see column 2, lines 20-28 and column 3, line 49).

It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to an ordinary practitioner that the R1 group of Fujimatsu compound No. 18 should be attached in the para position since Usagawa states "p-phenylene is most preferable" (so that Usagawa prefers the para position in this structure for cyan dyes). Usagawa motivates this preference by noting that when the group is in the para position "the dispersion stability at the time of coating or the finish of

coating is improved (column 2, lines 20-21)". An ordinary practitioner would have been motivated to place the R1 group of Fujimatsu in the para position in order to improve the dispersion stability.

Allowable Subject Matter

5. Claims 21 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. The following is a statement of reasons for the indication of allowable subject matter: The claims have R2 of Fujimatsu as a ring with two chlorine groups. There is no suggestion in the cited prior art to place such a ring on the photographic dye at the appropriate position. While there are rings in Fujimatsu and Gibson which have a single halogen substitution, there are no rings with two substitutions and no particular suggestion to make such a substitution.

Response to Arguments

7. Applicant's arguments filed February 3, 2003 have been fully considered but they are not persuasive.

Applicant argues that there is an unexpected result, specifically that a substituted nitrogen in the sulfonamide group improves light stability of the cyan dye. This argument is not found persuasive for a variety of reasons. As an initial matter, the fact that Fujimatsu suggested compounds falling within the scope of the claims shows that the *prima facie* case of obviousness was made. As the CAFC noted in *In re Peterson*, 315 F.3d 1325 (CAFC 2003) "A *prima facie* case of obviousness typically exists when

the ranges of a claimed composition overlap the ranges disclosed in the prior art." So the issue is whether the unexpected results argued by Applicant overcome this *prima facie* case of obviousness.

First and foremost, the evidence showing the unexpected result is not commensurate in scope with the claims. The unexpected result is limited to a comparison of I-1 and I-2 and CC-1 and CC-2, and in particular, applicant argues that I-1 is unexpectedly superior to CC-1. However, as MPEP 716.02(d) notes "Whether the unexpected results are the result of unexpectedly improved results or a property not taught by the prior art, the "objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support." In other words, the showing of unexpected results must be reviewed to see if the results occur over the entire claimed range." However, a comparison of a single compound, the dye I-1, does not begin to encompass the literally millions of different compounds which fall within the scope of claim 13. There is no way that this result can be deemed representative of the entire scope of the claim and so the unexpected results are not commensurate in scope with the claim and do not overcome the *prima facie* case of obviousness.

Second, it is not clear that the comparison was to the closest prior art. Compound 18 of Fujimatsu is at least as close to the claimed compound, differing in the meta versus ortho positioning, as CC-1. As MPEP 716.02(e) notes "Showing unexpected results over one of two equally close prior art references will not rebut *prima facie* obviousness unless the teachings of the prior art references are sufficiently similar

to each other that the testing of one showing unexpected results would provide the same information as to the other." Since the Fujimatsu reference compound of example 18 is different than CC-1 and would not be expected to yield the same information, the comparison was not performed with the closest prior art reference.

Third, the actual results demonstrated, a change in light stability from -.40 to -.27, is not clearly of statistical or practical significance. As MPEP 716.02 (b) notes "The evidence relied up should establish "that the differences in results are in fact unexpected and unobvious and of both statistical and practical significance." Here, no statistical comparisons are made between the light stability numbers which would permit evaluation of this data. Also, no practical implications in terms of deterioration under real world conditions is identified. So even for the narrow compound I-1 itself, which would at least fall within the scope of any unexpected result, the evidence has not been demonstrated to be unexpected.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the reference expressly suggests placement of the R1 group in the Ortho position as Fujimatsu expressly claims a compound where X is "orthophenylene (see claim 20) ". This is an

express suggestion that the compound of example 18 could be altered to have the "X" group be ortho.

Applicant then argues that there is no motivation to combine Usugawa with Fujimatsu because there was no evidence of improved light stability. MPEP 2144 notes "The reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant." Here, the motivation to combine is for a different reason than that of Applicant. As noted in the rejection, Usagawa states "p-phenylene is most preferable" (so that Usagawa prefers the para position in this structure for cyan dyes). Usagawa motivates this preference by noting that when the group is in the para position "the dispersion stability at the time of coating or the finish of coating is improved (column 2, lines 20-21)". An ordinary practitioner would have been motivated to place the R1 group of Fujimatsu in the para position in order to improve the dispersion stability. This motivation is sufficient to provide a *prima facie* case of obviousness, even though it is different than the motivation of Applicant.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Fredman whose telephone number is 703-308-6568. The examiner can normally be reached on 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 703-308-1119. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.



Jeffrey Fredman
Primary Examiner
Art Unit 1637

February 25, 2003